

MINUTES
OF
THE UTAH RADIATION CONTROL BOARD

September 7, 2007

Department of Environmental Quality, DEQ Building #2

Conference Room 101

168 N 1950 W

Salt Lake City, Utah 84114-4850

BOARD MEMBERS PRESENT

Kent J. Bradford, P.G., Chair
Stephen T. Nelson, Ph.D., Vice Chair
Dane L. Finerfrock, Executive Secretary
Christian K. Gardner
Elizabeth Goryunova, M.S.
Peter A. Jenkins, M.S., CHP
Joette E. Langianese, Commissioner
Robert S. Pattison, B.S.
Richard W. Sprott, DEQ Executive Director
John W. Thomson, M.D.

PUBLIC

Steve Erickson, Citizens Education Project
Judy Fahys, Salt Lake Tribune
Dave Frydenlund, Densison Mines (USA)
Corporation
Charles Judd, Cedar Mountain
Karen Langley, University of Utah
Mark Ledoux, EnergySolutions
Treesa Parker, EnergySolutions
Tye Rogers, EnergySolutions
Jim Sweet, Gamma West

BOARD MEMBERS ABSENT/EXCUSED

Patrick D. Cone
Frank D. DeRosso, MSPH, C.I.H.
Joseph K. Miner, M.D., MSPH
Gregory G. Oman, D.D.S., B.S.

**DRC STAFF/OTHER DEQ MEMBERS
PRESENT**

Phil Goble, DRC Staff
Dean Henderson, DRC Staff
John Hultquist, Section Manager
Craig Jones, Section Manager
Loren Morton, Section Manager
Yoli V. Necochea, DRC Staff
Fred Nelson, Attorney General's Office
Raymond Nelson, DRC Staff
Donna Spangler, DEQ Policy and Planning

GREETINGS/MEETING CALLED TO ORDER

The Utah Radiation Control Board convened in the Department of Environmental Quality (DEQ) Conference Room 101; 168 North 1950 West; DEQ Building 2; Salt Lake City, Utah. Kent Bradford, Chair, called the meeting to order at 2:04 p.m. Chairman Bradford welcomed the Board Members and the public. He indicated that if the public wished to address any items on the agenda, they should sign the public sign-in sheet. Those desiring to comment would be given an opportunity to address their concerns during the public comment period.

I. APPROVAL OF MINUTES (Board Action Item)

a. Approval of the August 3, 2007 Board Minutes

Kent Bradford, Chair, asked the Board for corrections to the minutes from August 3, 2007. Stephen Nelson, Vice Chair, proposed the following corrections:

1. Item VII. b. "Possible Agenda Item: Definitions of Ore," Page 10, second paragraph which reads: "He asked the DRC staff and the Attorney General's Office to go over the lengthy transcript from the 1999 Position Statement" **Change to read: ". . . to go over the lengthy transcript from last fall's hearings (January 6 and 26, 2006, DRC Board Hearing Transcripts)"**

MOTION MADE BY ELIZABETH GORYNOVA TO APPROVE THE MINUTES WITH THE REQUESTED CORRECTION OF AUGUST 3, 2007.

MOTION WAS SECONDED BY ROBERT PATTISON.

JOETTE LANGIANESE ABSTAINED FROM THE VOTE BECAUSE SHE WAS NOT IN ATTENDANCE AT THE LAST BOARD MEETING.

MOTION CARRIED AND PASSED

II. RULES

a. Reauthorization and Five-year Review of R313-24: "Uranium Mills and Source Material Mill Tailings Disposal Facility Requirements"

John Hultquist, Section Manager, asked the Board to approve and reauthorize R313-24, "Uranium Mills and Source Material Mill Tailings and Disposal Facility Requirements." He said the Utah Administrative Rulemaking Act, Title 63, Chapter 46a requires each rule to be reviewed within five years of the effective date. Section R313-24 is subject to the five-year review, and its' review is due by October 7, 2007.

R313-24 establishes the requirements of federal law relating to radiation and qualifies Utah to maintain its primacy for the Uranium Mill Program,

instead of having it maintained by the Federal Government.

RECOMMENDATION:

The Executive Secretary recommended that the Board approve the continuation of R313-24, and direct DRC staff to file the rule with the Division of Administration Rules, before October 7, 2007.

MOTION MADE BY STEPHEN NELSON TO APPROVE THE CONTINUATION OF R313-24, AND DIRECT DRC STAFF TO FILE WITH THE DIVISION OF ADMINISTRATION RULES, BEFORE THE OCTOBER 7, 2007 DEADLINE.

MOTION SECONDED BY ELIZABETH GORYUNOVA.

MOTION CARRIED AND PASSED UNANIMOUSLY

II. RULES

b. Proposed Rule R313-16-230, “Registration Machines”

Craig Jones, Section Manager, directed the Board to this “action item” in their Board packet. He explained the requirements and time period for registration of X-ray units, and he reminded the Board about a proposed change to Section R313-16-230(2) that was approved at the June 1, 2007 Board meeting.

Craig explained that a summary of the proposed change was published in the July 15, 2007 edition of the Utah State Digest. He also said that a public notice, announcing the start of a 30-day public comment period was published on July 15, 2007 in the Salt Lake Tribune and Deseret Morning News. During the public comment period for this rulemaking, no oral or written comments were submitted to the Executive Secretary.

Craig Jones asked if there were any questions about the proposed changes to the rule, and he recommended an action for the Board to take.

RECOMMENDATION:

The Executive Secretary recommended that the Board approve the changes to the Utah Radiation Control Rules and establish September 14, 2007 as the effective date.

QUESTIONS BY THE BOARD:

Elizabeth Goryunova asked if the change was being made to spread the registration work-load throughout the year. Craig Jones responded that she was correct, and he provided information about the three registration cycles that will replace the one registration cycle.

MOTION MADE BY RICHARD SPROTT TO APPROVE THE CHANGES TO THE UTAH RADIATION CONTROL RULES AND ESTABLISH SEPTEMBER 14, 2007 AS THE EFFECTIVE DATE.

MOTION WAS SECONDED BY STEPHEN NELSON.

MOTION CARRIED AND PASSED UNANIMOUSLY

III. RADIOACTIVE MATERIALS LICENSING/INSPECTION

b. U.S. Nuclear Regulatory Commission Proposal To Require License Employee Fingerprinting

Craig Jones directed the Board to a brief statement in the Board packet that addressed this information item. He explained to the Board Members that the U.S. Nuclear Regulatory Commission (NRC) will begin issuing Orders to their licensees that are subject to increased requirements to control (IC) security for licensed materials. He said that the Orders will be issued this fall and will require fingerprinting and a Federal Bureau of Investigation identification and criminal history records check for individuals that have, or will have, unescorted access to radioactive material in quantities of concern.

Craig explained that the NRC was taking increased security controls since September 11, 2001 (9/11). He explained that the focus has been on methods to deter unauthorized access to radioactive material for the purpose of causing some malicious act. Craig described the regulatory actions taken by the Division to enhance security of licensed materials.

On March 12, 2007 the NRC Commissioners directed their employees to develop a plan to require fingerprinting and criminal-history records checks for individuals who work for IC licensees. The requirements are compatibility items for Agreement States to implement. Craig Jones described the exchange of information between Agreement States and the NRC to develop these requirements. He noted that there were no Utah statutory or regulatory prohibitions that prevent the implementation of these requirements.

Craig summarized a teleconference, held on August 29, 2007, with NRC and the Agreement States. He explained that the NRC staff has told the Commissioners that they will not meet the implementation deadline of September 12, 2007. This deadline will not be met, in part, because the Office of General Counsel (OGC) has some edits to the implementation plan and the OGC is not ready to release the edits. Overall, this regulatory change is a work in progress and the implementation date is uncertain.

Craig noted that there were some Board members who work for, or are

associated with, facilities that are subject to the increased control requirements. He said that some of their staff will be required to submit their fingerprints the NRC for review and these employees will go through a criminal records investigation. Craig concluded by mentioning that there were 20 licensees in Utah that will be impacted.

Questions/Comments by the Board:

Elizabeth Goryunova asked what kind of edits would be considered by the NRC's legal office.

Craig Jones, Section Manager, responded that this was not discussed during the teleconference call, and he apologized for not having this information.

John Thomson, M.D. asked what constitutes an "amount of concern."

Craig Jones identified the quantities of concern for some radionuclides. He mentioned the following:

<u>Radionuclide</u>	<u>Quantity of Concern</u>
Iridium-192	22 curies
Cobalt-60	8.1 curies
Americium-241	16 curies
Cesium -137	27 curies

Craig said that these were not inconsequential amounts of radioactive material. He opined that any of these quantities, in the hands of someone intent on carrying out a malicious act, would have consequences that would either cause panic or health concerns.

Discussion followed by the Board Members regarding the process of fingerprinting and the retention of records. Craig responded by telling the Board Members that there were a lot of unanswered questions. He said that these unanswered matters were why the NRC staff would not meet the NRC Commissioner's deadline and implementation date of September 12, 2007. He described how Agreement States may be asked to confirm a licensee's level of compliance with these requirements. Craig mentioned the need to look at records kept by the licensee. He explained that the DRC has recommended that NRC not require Agreement States to maintain records about individuals who have been fingerprinted and had their criminal history records reviewed.

IV. X-RAY REGISTRATION/INSPECTION
No Items

V. RADIOACTIVE WASTE DISPOSAL

a. Update: Request for Extension of the Public Comment Period for the EnergySolutions Low-Level Radioactive Waste Disposal License and Public Comment Hearings Held

Loren Morton, Section Manager, updated the Board on this item. He said the start of this public comment period began on June 21, 2007, and the Division ran it for 60 days. On August 10, 2007, HEAL-Utah gave us a written request to extend the public comment period for 30 more days. DRC granted Heal-Utah's request, and on August 21, 2007, DRC published a notice in both the Salt Lake Tribune and Deseret Morning News.

The comment period will end on Friday, September 21, 2007. Within 30 days, we hope to finalize the requirements in the license and ground water permit. In addition, we will prepare a public participation summary.

Questions by Board Members:

Dane Finerfrock, Executive Secretary, asked Loren to summarize the results of the public hearings.

Loren Morton responded that there were two public hearing held. One hearing was held in Salt Lake, in this conference room, on August 15, 2007. The other was held in Tooele, Utah on August 16, 2007. There were no oral comments from the public.

Stephen Nelson, Vice Chair, asked "there were no comments, even though this was the rational for the extended comment period?"

Loren responded that a member of the public requested additional time, and the Division decided to give it to them. Those comments have to be received in written form. They asked for a 30-day extension, and after consulting with the Attorney Generals Office, we granted their request.

b. Update: Renewal of the EnergySolutions Ground Water Discharge Permit

Loren Morton, Section Manager, informed the Board that the ground water permit renewal was intended to be completed at the same time as the license renewal. It is slightly behind schedule. The Division published a notice in the paper in late August 2007. The comment period began on August 28, 2007. We have a public comment meeting scheduled for September 25, 2007 in this conference room. The Division hopes to finalize the ground water permit about the same time that the license is finalized.

Comments/ Questions by Board Members:

Kent Bradford, Chairman, said he noticed the Division had a couple of documents available on the web.

Loren Morton, Section Manager, responded there was a Draft Permit and a Statement of Basis. They explain the changes in the permit. The major part of the ground water permit renewal is to reevaluate groundwater quality information obtained over the last several years. In some cases, the permittee proposes changes in the groundwater protection levels. There are certain parameters for certain wells. The Statement of Basis explains what the proposed changes are, and whether or not the Executive Secretary agrees with them.

VI. URANIUM MILL LICENSING AND INSPECTION

a. Update: Background Ground Water Quality Report and Ground Water Aging Study at the White Mesa Uranium Mill

Loren Morton, Section Manager, updated the Board on this item. He said he had previously mentioned that the University of Utah staff completed their fieldwork for the Division. It took 10 days in July 2007, and the analysis of the fieldwork is on-going right now. He said he anticipated a Draft Report available from the University of Utah in late October 2007.

On August 1, 2007, the DRC staff sent an e-mail to the Denison Mine Corporation (DMC) with preliminary comments on the Background Ground Water Quality Report for existing wells. On August 3, 2007 we met to discuss the contents of URS' findings. During the meeting they agreed to revise and submit the report within 60 days, if DRC could complete the following tasks--they were:

- 1) Determination of applicable guidance for statistical analysis for ground water quality, and
- 2) Approval of decision-tree/flow-chart to guide data preparation and statistical analysis

On August 8, 2007, the DRC sent an email to DMC, and provided a determination that the statistical analysis must follow EPA's guidance from 1989 and 1992.

On August 10, 2007, DRC formalized in a letter, direction about the EPA statistical guidance that should be used. DMC then provided the decision-tree/flow-chart via an email on August 16, 2007. The DRC "conditionally approved" the flow chart in a letter on August 24, 2007. Consequently, the 60-day clock started on August 24, 2007. In October 2007, the

Division should receive the revised report.

b) Update: Modification of the White Mesa Uranium Mill Ground Water Discharge Permit – Cell 4A Relining Project

Loren Morton, Section Manager, went over the August 9, 2007 URS memorandum, which identifies several issues in the report that need to be corrected. Loren asked the Board Members to refer to the summary that was handed out to them.

After going over the items, Loren said the Groundwater Permit would be modified to accommodate the corrections. The company would like to finish building a liner this fall. We will be sharing a draft of the permit with them within the next few days. This will give them a chance to review and weigh-in on its content before the public comment. Loren said he hoped to start the public comment period in a couple of weeks. A 30-day public comment period could be completed by mid-October 2007. The permit could be approved some time in late November 2007, if every thing goes well.

Questions by Board Members:

Kent Bradford, Chairman, said “it looks like you have accomplished a lot, and I compliment you on this.”

Joette Langianese asked Loren to explain the difference between 140% saturation, and what they are requesting--a 50% saturation?

Loren Morton responded that when acid comes in contact with the clay material prematurely, before it can swell and hydrate, then the permeability of the Geosynthetic Clay Liner (GCL liner) can increase. Some research suggests an increase by a factor of ten--ten times more permeable. It is important to hydrate the GCL liner well before acids have an opportunity to contact it.

Kent Bradford, Chairman, said the Division is essentially asking them to demonstrate that 50% is as protected as the 140%.

Loren Morton said White Mesa has run some tests and provided some data. The Division is looking at that data right now to make sense of it. The Division will compare it with research available in Scientific Journals.

Stephen Nelson, Vice Chair, asked if the concern was about the acids in the pond or the availability of fresh water to simply hydrate the liner?

Loren Morton responded that it was part of the test. White Mesa applied water to the foundation first and laid down the Geosynthetic Clay Liner

(GCL). They “clipped a bunch of coupons,” (took samples), from the GCL, and had them sent to the lab for testing. They revised the test pad, and this time they pulled out the GCL and pre-wetted the foundation. Then they laid down a new GCL. The third time they “prepped” the foundation, and then actually wetted the GCL, itself. They have gone through several tests to find the “right recipe.” Along the way, they “clipped coupons,” (took samples), of this lining material, and had this tested for permeability. From the last round of submittals, they are arguing 50% hydration or saturation is going to yield the same acceptable results.

Stephen Nelson, Vice Chairman, asked if they were having trouble coming to 100%?

Loren Morton responded that the efforts they have taken thus far have helped them get to 100% saturation. They have not met the requirement of the “conditional approval.” They are asking for a variance.

VII. OTHER DIVISION ISSUES

a. Introduction of Richard W. Sprott, Executive Director

Kent Bradford, Chairman, introduced Richard W. Sprott, the new Executive Director of DEQ and new DRC Board Member. He asked Richard Sprott to introduce himself.

Richard Sprott, Executive Director, apologized for being a few minutes late. He said it was a pleasure to be a member of the Board. He said he also had the pleasure of meeting Joette Langianese earlier today. He said that he looked forward to getting to know each Board Member better. He said he was the Director of Air Quality for the last few years, and he said he looked forward to learning more about radiation. He said he had watched Radiation Control from afar for quite a long time.

b. Board Term Expiration for Robert Pattison, B. S.

Dane Finerfrock, Executive Secretary, said Robert Pattison’s term expired on June 30, 2007. He said the Governor had recently found an applicant, and had forwarded his name to the Senate for confirmation. Dane said that the confirmation will likely happen at the Interim Committee Meeting on September 18, 2007.

Dane said since Mr. Pattison drives to Salt Lake City from Moab, this was his opportunity to tell him on behalf of the Division of Radiation Control and the citizens of the State of Utah: “thank you for your services to the Radiation Control Board.”

Kent Bradford, Chairman, also thanked Robert Pattison for being a member of the Board.

c. Update Regarding the Community Environmental Monitoring Station and the Deseret Research Institute (DRI) in Nevada

Dane Finerfrock, Executive Secretary, said Steve Erickson, Citizens Education Project, at the last Board meeting, talked about the community environmental monitoring network that the Department of Energy operates. Mr. Erickson expressed his concern about the high-levels of exposure that the Milford station registered during the forest fires. Dane said the Board directed him to contact the National Nuclear Security Agency and invite to provide additional information to the Board. Dane said they were willing speak. He said they would be bringing a large group of people. He said they could speak to the Board at the October 2007 Board meeting.

VIII. PUBLIC COMMENT

Charles Judd, Cedar Mountain, said that he was happy about the 60-day extension to the public comment period on *EnergySolutions*' license. He asked the Board to address the following concerns:

- (1) The list of concerns he provided in the April 2007 Board meeting regarding *EnergySolutions*.
- (2) He is concerned that *EnergySolutions* is planning to use more of the 11.e(2) area for more waste disposal.
 - (a) The waste needs to be in separate cells. *EnergySolutions* is combining the 11.e(2) cell and the Class A waste cells together.
- (3) *EnergySolutions* has signed approximately 80 contracts with delivery timeframes of 25 years. The site is going to be filled up. It does not have 700,000 cubic yards left to dispose of the waste properly.
- (4) He said he was also concerned, because of the information *EnergySolutions* provided in the Engineering QC Department Report. They indicate the kind of rock they use, and the availability of that rock. They need 700,000 cubic yards. He said the BLM indicated they do not have a permit for that. Their permit is for 10, 000 cubic yards. He said it is very misleading for *EnergySolutions* to say that they have reserves of 1.1 million cubic yards, and they only have authority for 10, 000 cubic yards.

Tye Rogers, *EnergySolutions*, responded. He said *EnergySolutions* would be happy to explain any of these situations to the Board or the Division of Radiation

Control.

Questions by the Board:

Stephen Nelson, Vice Chairman, asked if someone could enlighten him on the issue of Class A waste and 11.e(2) material.

Dane Finerfrock, Executive Secretary, said *EnergySolutions* has not submitted anything to the Division, and there has not been approval granted for Class A waste in the 11.e(2) disposal area.

IX. OTHER ISSUES

X. Next Scheduled Board Meeting: October 5, 2007; DEQ Bldg #2; Conference Room 101; 168 North 1950 West; Salt Lake City, Utah; 2:00 - 4:00 P.M.

A discussion followed. It was agreed by the Board Members to hold the November 2007 Board meeting in Moab, Utah.

THE BOARD MEETING ADJOURNED AT 3:09 P.M.